## REMARKS/ARGUMENTS

Claims 1-4, 6-11, 13-18, 20 and 21 are now pending in this application. Claims 5, 12 and 19 have been cancelled. Claims 1, 8 and 15 have been amended. Claims 1, 8 and 15 are independent claims.

### *Claim Objections*

Claims 1, 8 and 15 were objected to due to informalities. (Office Action, Page 2). The Patent Office asserted that the claimed elements "abstracting sets of transistors into abstract resources" and "sea-of-platforms" were not clearly defined in the application specification. (Office Action, Page 2). Applicant respectfully traverses these objections, citing paragraphs 0055 and 0056, pages 15-16 of the Present Application as clearly defining "abstracting sets of transistors into abstract resources". In addition, Applicant cites paragraph 0013, page 5 of the Present Application as clearly defining a "platform" and further cites paragraph 0020, pages 6-7 of the Present Application as defining a "sea-of-platforms". Therefore, in lieu of the above, Applicant believes the objections under this section should be withdrawn.

### *Claim Rejections – 35 USC § 112, 1st Paragraph*

Claims 1, 6-8, 13-15 and 20-21 were rejected under 35 U.S.C. § 112, 1st Paragraph. (Office Action, Page 2). Applicant respectfully traverses these rejections. The Patent Office asserted that the claimed elements "flexible" and "malleable", as recited in claims 1, 8 and 15, were not clearly defined in the application specification. (Office Action, Page 2). Claims 1, 8 and 15 have been amended to no longer include the elements "flexible" and "malleable".

The Patent Office further asserted that the claimed element "broken symmetry" was not clearly described in the specification. (Office Action, Page 2). Applicant cites page 18, paragraph 0065 of the Present Application as clearly defining the above-referenced term as set forth below:

> "The present invention applies a property called broken
> symmetry....Broken symmetry operates to balance the

competing demands of specific designs and general
resource sets on the physical and temporal resources of a
device's architecture."

Therefore, in lieu of the above, Applicant believes the rejections under this
section should be withdrawn.

### *Claim Rejections – 35 USC § 112, 2nd Paragraph*

Claims 1, 5, 8, 12, 15 and 19 were rejected under 35 U.S.C. § 112, 2nd Paragraph.
(Office Action, Page 3). Applicant respectfully traverses these rejections. The Patent
Office asserted that the claimed elements "flexible" and "malleable", as recited in claims
1, 8 and 15 were relative terms and that the specification did not provide a standard for
ascertaining a requisite degree. (Office Action, Page 3). Claims 1, 8 and 15 have been
amended to no longer include the elements "flexible" and "malleable".

As to claims 5, 12 and 19, the Patent Office asserted that the term
"plesiochronous" as used in the present application means "synchronous with the external
clock signal", while the accepted meaning of "plesiochronous" is "transmit signals
internally across net". (Office Action, Page 3). Further, the Patent Office asserted that
the present application did not clearly redefine the term in the specification. (Office
Action, Page 3). Applicant cites page 7, paragraph 0023 and page 8, paragraph 0025 of
the present application as clearly defining "plesiochronous" as set forth below:

> "the present invention proposes implementing a
> plesiochronous signaling discipline by means of which
> every interconnected element in the sea of platforms is
> provided with just the timing resources necessary to
> accomplish its task, but no more. In other words, excess
> accuracy or precision in the provision of timing resources
> to a node or unit in the fabric is undesirable because it
> allocates energy or physical components unnecessarily and
> therefore inefficiently to the instantaneous timing
> requirements of the unit."

> "Such signaling, which differs, for example, from
> jitter management schemes, falls broadly under the
> classification of plesiochronous architectures. Its central
> advantage in the sea of platforms case is that timing may be

permitted to vary freely with respect to precision and
accuracy where appropriate within the fabric"

The website www.wikipedia.com defines "plesiochronous" systems as: "systems which run in a state where different parts of the system are almost, but not quite perfectly, synchronized." As set forth above, the present application defines a "plesiochronous" system as a system in which "excess accuracy or precision in the provision of timing resources to a node or unit in the fabric is undesirable." Such definition necessarily implies not quite perfect synchronization. Thus, the present application defines "plesiochronous" in a manner consistent with its commonly accepted definition, thereby obviating any need to *redefine* it to clearly distinguish it from its commonly accepted definition.

Based on the above rationale, Applicant believes the rejections under this section should be withdrawn.

## *Claim Rejections – 35 USC § 102*

Claims 1-21 were rejected under 35 U.S.C. § 102(e) as being anticipated by Carruthers et al. USPN: 6,370,677 (hereinafter: Carruthers). (Office Action, Page 4). Applicant respectfully traverse these rejections.

Anticipation requires the disclosure in a single prior art reference of each element of the claim under consideration. *W.L. Gore & Assocs. v. Garlock*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984). Further, "anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, underlined as in the claim." *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 221 USPQ 481, 485 (Fed. Cir. 1984) (citing *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 220 USPQ 193 (Fed. Cir. 1983)) (emphasis added).

Independent claims 1, 8 and 15 recite elements that have not been disclosed, taught or suggested by Carruthers. For example, claims 1, 8 and 15 each generally recite:

"utilizing a sea-of-platforms for unifying a collection of
said abstracted resources in such a way as to optimize said
abstracted resources for a specific integrated circuit design,
said abstracted resources configured for being fashioned

> into multiple arrangements *wherein said utilizing step/means comprises implementing a plesiochronous signaling discipline in said sea-of-platforms said plesiochronous signaling discipline providing only necessary timing resources for achieving a particular task.*"

It is contended that Carruthers does not teach the above-referenced elements.

In the present application, a system and method are described in which a plesiochronous signaling discipline is implemented in a sea-of-platforms architecture. (Present Application, Page 7, Paragraph 0023). This is advantageous in that timing may be permitted to vary freely with respect to precision and accuracy where appropriate within the fabric, but may at any point be coordinated or synchronized with external entities whose state has arrived at a requirement for the re-imposition of a greater degree of accuracy and precision. (Present Application, Page 8, Paragraph 0025). Further, the implementation of the plesiochronous signaling discipline maximizes efficiency by allowing every interconnected element in the sea of platforms to be provided with only the timing resources necessary to accomplish its task, but no more. (Present Application, Page 7, Paragraph 0023).

The Patent Office cited Column 7, Lines 49-58 of Carruthers as teaching the above-referenced elements. (Office Action, Page 5). The cited portion of Carruthers merely describes a logic cell having components which transmit signals internally across nets. (Carruthers, Column 7, Lines 53-55). The Patent Office equates "transmitting signals internally across nets" with the plesiochronous signaling implemented in the present invention. (Office Action, Page 5). However, nowhere in the commonly accepted definition of "plesiochronous" set forth previously does it describe "transmitting signals internally across nets." Further, nowhere in Carruthers does it disclose, teach or suggest the above-described advantages (ex.-maximizing efficiency) which accompany plesiochronous signaling as implemented in the present invention. Therefore, Applicant contends that Carruthers does not teach a system/method implementing plesiochronous signaling as claimed in the present invention.

Based on the above rationale, it is contended that Carruthers does not teach the above-referenced elements of claims 1, 8 and 15 of the present application. Under

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*Lindemann*, a prima facie case of anticipation has not been established for claims 1, 8 and 15. Thus, independent claims 1, 8 and 15 should be allowed. Further, dependent claims 2-4, 6 and 7 (which depend on independent claim 1), dependent claims 9-11, 13 and 14 (which depend on independent claim 8), and dependent claims 16-18, 20 and 21 (which depend on independent claim 15) should also be allowed.
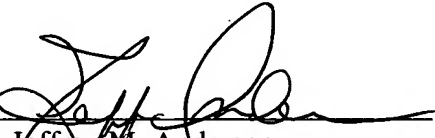
## CONCLUSION

In light of the forgoing, reconsideration and allowance of the pending claims is earnestly solicited.

Respectfully submitted on behalf of

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